

Amendments to the Specification:

Please delete the heading "BRIEF DESCRIPTION OF THE DRAWINGS" on page 9, line 14.

Please delete the paragraph at page 9, lines 15-19.

Please replace the paragraph bridging pages 11 and 12, beginning at line 19, with the following amended paragraph:

~~The results of simulating the direct polymerization by adding m-xylylenediamine to molten adipic acid under atmospheric pressure are shown in Fig. 4.~~ First, in a specific mole balance, the number average molecular weight of the polyamide obtained at the set point was calculated using a second-order rate equation of amidation, while fixing all the reaction conditions such as the total amount of molten adipic acid and m-xylylene diamine, the temperature of molten adipic acid when starting the dropwise addition of m-xylylene diamine, the dropwise addition time of m-xylylene diamine and the temperature rise history during the dropwise addition, the temperature of the reaction solution when completing the dropwise addition of m-xylylene diamine, and the time and temperature history from completing the dropwise addition of m-xylylene diamine until reaching the set point. Then, using the number average molecular weight thus obtained, the melt viscosity of polyamide at a given temperature was calculated from the preformulated Equation B to be mentioned below. These series of calculations were repeated while appropriately changing the mole balance, ~~and the results thereof were plotted on~~

~~Fig. 1. As seen from Fig. 1, the~~ The melt viscosity and the mole balance have a definite correlation with each other, showing that an estimating equation for calculating the mole balance from the melt viscosity at the set point during the melt polymerization can be formulated.--

Please replace the paragraph on page 12, beginning at line 10, with the following amended paragraph:

--~~As seen from Fig. 1, the~~ The melt viscosity and the mole balance are in curved relationship in the mole balance range of 0.997 to 1.003. In this range, the difference in the mole balance is hardly reflected as the difference in the melt viscosity, and it is difficult to determine which of dicarboxylic acid and diamine is in excess in the region centering around mole balance = 1. Therefore, the mole balance is preferably estimated in the mole balance ranges of 0.997 or less, and 1.003 or more, because from the amounts of monomers actually added it can be easily determined in these ranges which of dicarboxylic acid and diamine is in excess. The mole balance can be easily estimated from the following linear estimating Equation A:

$$\text{Mole balance} = a \times \text{MV} + b \quad (\text{A})$$

wherein MV is melt viscosity (Pa·s), and a and b are empirical constants.--

Please replace the paragraph on page 33, beginning at line 2, with the following amended paragraph:

--Into a 13-m³ jacketed vacuum tumble dryer of batch type, about 3000 kg pellets of the melt-polymerized polyamide from each batch was charged. After replacing the dryer with nitrogen, the temperature was started to be raised using a heating medium under nitrogen atmosphere. The evacuation was started when the inner temperature reached 120°C. When the inner temperature reached 140°C and thereafter, the evaluation of the number average molecular weight of polyamide under solid phase polymerization was started by successive calculation with one minute update interval on the basis of second-order rate equation of amidation while using estimated mole balance, estimated number average molecular weight (taken as the number average molecular weight at the initiation of solid phase polymerization), temperature and pressure. The inner temperature was raised to 205°C. When the calculated result of the number average molecular weight of polyamide under solid phase polymerization reached an aimed value, the pressure was returned to atmospheric pressure by nitrogen and the cooling by heating medium was started. When the inner temperature reached 60°C, the pellets of solid phase-polymerized polyamide were discharged to measure the relative viscosity. The results of measurement of the relative viscosity of the solid phase-polymerized polyamides of 15 batches are shown in Table 5 and Fig. 2. The polyamide pellets could be introduced into the vacuum tumble dryer immediately after melt polymerization and the solid phase polymerization could be initiated with little time lag, without needing time from the completion of melt polymerization to the initiation of solid phase polymerization.--

Please replace the paragraph on page 34, beginning at line 6, with the following amended paragraph:

--The solid phase polymerization was conducted in the same manner using the same apparatus as in Example 17. When the inner temperature reached 140°C and thereafter, the evaluation of the number average molecular weight of polyamide under solid phase polymerization was started by successive calculation with one minute update interval on the basis of second-order rate equation of amidation while using measured mole balance, measured number average molecular weight (taken as the number average molecular weight at the initiation of solid phase polymerization), temperature and pressure. The inner temperature was raised to 205°C. When the calculated result of the number average molecular weight of polyamide under solid phase polymerization reached the value of Example 17, the pressure was returned to atmospheric pressure by nitrogen and the cooling by heating medium was started. When the inner temperature reached 60°C, the pellets of solid phase-polymerized polyamide were discharged to measure the relative viscosity. The results of measurement of the relative viscosity of the solid phase-polymerized polyamides of 15 batches are shown in Table 5 and Fig. 2. About six hours were taken to chemically analyze the mole balance, number average molecular weight and relative viscosity of the melt-polymerized polyamides, and the solid phase polymerization could not be conducted until the analysis of the melt-polymerized polyamide was completed.--